

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/090,879  
Source: IFW0  
Date Processed by STIC: 10/19/2006

# ***ENTERED***



IFWO

## RAW SEQUENCE LISTING

DATE: 10/19/2006

PATENT APPLICATION: US/10/090,879

TIME: 08:08:35

Input Set : A:\16163-025002.txt

Output Set: N:\CRF4\10192006\J090879.raw

4 <110> APPLICANT: Somers, William S.  
 5 Stahl, Mark  
 6 Sullivan, Francis X.  
 9 <120> TITLE OF INVENTION: CRYSTAL STRUCTURE OF E. COLI GDP-FUCOSE  
 10 SYNTHETASE (AND COMPLEXES THEREOF) AND METHODS OF  
 11 IDENTIFYING AGONISTS AND ANTAGONISTS USING SAME  
 14 <130> FILE REFERENCE: 16163-025002  
 16 <140> CURRENT APPLICATION NUMBER: US 10/090,879  
 17 <141> CURRENT FILING DATE: 2002-03-04  
 19 <150> PRIOR APPLICATION NUMBER: US 09/373,432  
 20 <151> PRIOR FILING DATE: 1999-08-13  
 22 <150> PRIOR APPLICATION NUMBER: US 60/096,452  
 W--> 23 <151> PRIOR FILING DATE: 08-13-1998  
 26 <160> NUMBER OF SEQ ID NOS: 3  
 28 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 30 <210> SEQ ID NO: 1  
 31 <211> LENGTH: 338  
 32 <212> TYPE: PRT  
 33 <213> ORGANISM: Escherichia coli  
 35 <400> SEQUENCE: 1  
 36 Met Arg Val Leu Val Thr Gly Gly Ser Gly Tyr Ile Gly Ser His Thr  
 37 1 5 10 15  
 38 Cys Val Gln Leu Leu Gln Asn Gly His Asp Val Ile Ile Leu Asp Asn  
 39 20 25 30  
 40 Leu Cys Asn Ser Lys Arg Ser Val Leu Pro Val Ile Glu Arg Leu Gly  
 41 35 40 45  
 42 Gly Lys His Pro Thr Phe Val Glu Gly Asp Ile Arg Asn Glu Ala Leu  
 43 50 55 60  
 44 Met Thr Glu Ile Leu His Asp His Ala Ile Asp Thr Val Ile His Phe  
 45 65 70 75 80  
 46 Ala Gly Leu Lys Ala Val Gly Glu Ser Val Gln Lys Pro Leu Glu Tyr  
 47 85 90 95  
 48 Tyr Asp Asn Asn Val Asn Gly Thr Leu Arg Leu Ile Ser Ala Met Arg  
 49 100 105 110  
 50 Ala Ala Asn Val Arg Asn Tyr Ile Phe Ser Ser Ser Ala Thr Val Tyr  
 51 115 120 125  
 52 Gly Asp Asn Pro Lys Ile Pro Tyr Val Glu Ser Phe Pro Thr Gly Thr  
 53 130 135 140  
 54 Pro Gln Ser Pro Tyr Gly Lys Ser Lys Leu Met Val Glu Gln Ile Leu  
 55 145 150 155 160  
 56 Thr Asp Leu Gln Lys Ala Gln Pro Asp Gln Ala Ser Ile Ala Leu Leu  
 57 165 170 175  
 58 Arg Tyr Phe Asn Pro Val Gly Ala His Pro Ser Gly Asp Met Gly Glu

## RAW SEQUENCE LISTING

DATE: 10/19/2006

PATENT APPLICATION: US/10/090,879

TIME: 08:08:35

Input Set : A:\16163-025002.txt

Output Set: N:\CRF4\10192006\J090879.raw

```

59          180          185          190
60 Asp Pro Gln Gly Ile Pro Asn Asn Leu Met Pro Tyr Ile Ala Gln Val
61          195          200          205
62 Ala Val Gly Arg Arg Asp Leu Ala Ile Phe Gly Asn Asp Tyr Pro Thr
63          210          215          220
64 Glu Asp Gly Thr Gly Val Arg Asp Tyr Ile His Val Met Asp Leu Ala
65 225          230          235          240
66 Asp Gly His Val Val Ala Met Glu Lys Leu Ala Asn Lys Pro Gly Val
67          245          250          255
68 His Ile Tyr Asn Leu Gly Ala Gly Val Gly Asn Ser Val Leu Asp Val
69          260          265          270
70 Val Asn Ala Phe Ser Lys Ala Cys Gly Lys Pro Val Asn Tyr His Pro
71          275          280          285
72 Ala Pro Arg Arg Glu Gly Asp Leu Pro Ala Tyr Trp Ala Asp Ala Ser
73          290          295          300
74 Lys Ala Asp Arg Glu Leu Asn Trp Arg Val Thr Arg Thr Leu Asp Glu
75 305          310          315          320
76 Met Ala Gln Asp Thr Trp His Trp Gln Ser Arg His Pro Gln Gly Tyr
77          325          330          335
78 Pro Asp
82 <210> SEQ ID NO: 2
83 <211> LENGTH: 316
84 <212> TYPE: PRT
85 <213> ORGANISM: Escherichia coli
87 <400> SEQUENCE: 2
88 Lys Gln Arg Val Phe Ile Ala Gly His Arg Gly Met Val Gly Ser Ala
89 1          5          10          15
90 Ile Arg Arg Gln Leu Glu Gln Arg Gly Asp Val Glu Leu Val Leu Arg
91          20          25          30
92 Thr Arg Asp Glu Leu Asn Leu Leu Asp Ser Arg Ala Val His Asp Phe
93          35          40          45
94 Phe Ala Ser Glu Arg Ile Asp Gln Val Tyr Leu Ala Ala Ala Lys Val
95          50          55          60
96 Gly Gly Ile Val Ala Asn Asn Thr Tyr Pro Ala Asp Phe Ile Tyr Gln
97 65          70          75          80
98 Asn Met Met Ile Glu Ser Asn Ile Ile His Ala Ala His Gln Asn Asp
99          85          90          95
100 Val Asn Lys Leu Leu Phe Leu Gly Ser Ser Cys Ile Tyr Pro Lys Leu
101          100          105          110
102 Ala Lys Gln Pro Met Ala Glu Ser Glu Leu Leu Gln Gly Thr Leu Glu
103          115          120          125
104 Pro Thr Asn Glu Pro Tyr Ala Ile Ala Lys Ile Ala Gly Ile Lys Leu
105          130          135          140
106 Cys Glu Ser Tyr Asn Arg Gln Tyr Gly Arg Asp Tyr Arg Ser Val Met
107 145          150          155          160
108 Pro Thr Asn Leu Tyr Gly Pro His Asp Asn Phe His Pro Ser Asn Ser
109          165          170          175
110 His Val Ile Pro Ala Leu Leu Arg Arg Phe His Glu Ala Thr Ala Gln
111          180          185          190

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/090,879

DATE: 10/19/2006

TIME: 08:08:35

Input Set : A:\16163-025002.txt

Output Set: N:\CRF4\10192006\J090879.raw

```

112 Asn Ala Pro Asp Val Val Trp Gly Ser Gly Thr Pro Met Arg Glu Phe
113      195      200      205
114 Leu His Val Asp Asp Met Ala Ala Ser Ile His Val Met Glu Leu
115      210      215      220
116 Ala His Glu Val Trp Leu Glu Asn Thr Gln Pro Met Leu Ser His Ile
117 225      230      235      240
118 Asn Val Gly Thr Gly Val Asp Cys Thr Ile Arg Glu Leu Ala Gln Thr
119      245      250      255
120 Ile Ala Lys Val Val Gly Tyr Lys Gly Arg Val Val Phe Asp Ala Ser
121      260      265      270
122 Lys Pro Asp Gly Thr Pro Arg Lys Leu Leu Asp Val Thr Arg Leu His
123      275      280      285
124 Gln Leu Gly Trp Tyr His Glu Ile Ser Leu Glu Ala Gly Leu Ala Ser
125      290      295      300
126 Thr Tyr Gln Trp Phe Leu Glu Asn Gln Asp Arg Phe
127 305      310      315
130 <210> SEQ ID NO: 3
131 <211> LENGTH: 312
132 <212> TYPE: PRT
133 <213> ORGANISM: Homo sapiens
135 <400> SEQUENCE: 3
136 Met Arg Ile Leu Val Thr Gly Gly Ser Gly Leu Val Gly Lys Ala Ile
137 1      5      10      15
138 Gln Lys Val Val Ala Asp Gly Ala Gly Leu Pro Gly Glu Asp Trp Val
139      20      25      30
140 Phe Val Ser Ser Lys Asp Ala Asp Leu Thr Asp Thr Ala Gln Thr Arg
141      35      40      45
142 Ala Leu Pro Glu Lys Val Gln Pro Thr His Val Ile His Leu Ala Ala
143      50      55      60
144 Met Val Gly Gly Leu Phe Arg Asn Ile Lys Tyr Asn Leu Asp Phe Trp
145 65      70      75      80
146 Arg Lys Asn Val His Met Asn Asp Asn Val Leu His Ser Ala Phe Glu
147      85      90      95
148 Val Gly Ala Lys Val Val Ser Cys Leu Ser Thr Cys Ile Phe Pro Asp
149      100     105     110
150 Lys Thr Thr Tyr Pro Ile Asp Glu Thr Met Ile His Asn Gly Pro Pro
151      115     120     125
152 His Asn Ser Asn Phe Gly Tyr Ser Tyr Ala Lys Arg Met Ile Asp Val
153      130     135     140
154 Gln Asn Arg Ala Tyr Phe Gln Gln Tyr Gly Cys Thr Phe Thr Ala Val
155 145     150     155     160
156 Ile Pro Thr Asn Val Phe Gly Pro His Asp Asn Phe Asn Ile Glu Asp
157      165     170     175
158 Gly His Val Leu Pro Gly Leu Ile His Lys Val His Leu Ala Lys Ser
159      180     185     190
160 Ser Gly Ser Ala Leu Thr Val Trp Gly Thr Gly Asn Arg Arg Gln Phe
161      195     200     205
162 Ile Tyr Ser Leu Asp Leu Ala Gln Leu Phe Ile Trp Val Leu Arg Glu
163      210     215     220

```

## RAW SEQUENCE LISTING

DATE: 10/19/2006

PATENT APPLICATION: US/10/090,879

TIME: 08:08:35

Input Set : A:\16163-025002.txt

Output Set: N:\CRF4\10192006\J090879.raw

```

164 Tyr Asn Glu Val Glu Pro Ile Leu Ser Val Gly Glu Glu Asp Glu Val
165 225                230                235                240
166 Ser Ile Lys Glu Ala Ala Glu Ala Val Val Glu Ala Met Asp Phe His
167                245                250                255
168 Gly Glu Val Thr Phe Asp Thr Thr Lys Ser Asp Gly Gln Phe Lys Lys
169                260                265                270
170 Thr Ala Ser Asn Ser Lys Leu Arg Thr Tyr Leu Pro Asp Phe Arg Phe
171                275                280                285
172 Thr Pro Phe Lys Gln Ala Val Lys Glu Thr Cys Ala Trp Phe Thr Asp
173                290                295                300
174 Asn Tyr Glu Trp Gln Ala Arg Lys
175 305                310

```

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/090,879

DATE: 10/19/2006

TIME: 08:08:36

Input Set : A:\16163-025002.txt

Output Set: N:\CRF4\10192006\J090879.raw

L:23 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD